ABSTRACT OF THE DISCLOSURE

A digital computer system for displaying a computer generated terrain representing a 3-dimensional depiction of the real world terrain surrounding a vehicle in real-time while the vehicle is in motion. This 3-D (3-Dimensional) image is rendered in real time while the vehicle is in motion and uses Global Positioning System (GPS) or differential GPS (dGPS) data available from a GPS unit and translates that data into virtual space within an Image Generation Processing block of the digital computer system. The digital computer system generates a virtual world 3-D image representing the eye-point position of the vehicle and directional vector into a terrain database. Using the latitude, longitude, and altitude supplied from the GPS unit as the eye point position into a virtual world using a terrain database, the Image Generation Processing block has a render engine capable of rendering a depiction of the terrain outside of the vehicle, as would be seen in high visibility conditions, regardless of weather, lighting and atmospheric conditions.

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